Reprinted from the German Journal of Psychiatry · http://www.gjpsy.uni-goettingen.de · ISSN 1433-1055

Family Behavior Therapy for Antisocial and Narcissistic Personality Disorders in China: An Open Study

Yongli Wang[1], Meifang Zhu[1], Jingyi Huang[1], Wei He[1], Shaohua Yu[1], Rongrong Yu[1], Shenfeng Tang[2], Mowei Shen[3], Wei Wang[1,2,3]

[1]Dept of Clinical Psychology and Psychiatry, Zhejiang University School of Medicine, Hangzhou, China;
[2]Section of Psychotherapy, Anhui Provincial Hospital, Anhui Medical University, Hefei, China;
[3]Dept of Psychology and Behavioral Sciences, Zhejiang University School of Sciences, Hangzhou, China

Corresponding author: Dr. Wei Wang, B. Med., D.Sc., Department of Clinical Psychology, Zhejiang University School of Medicine, Zijingang Campus, Yuhangtang Road 388, Hangzhou, Zhejiang 310058, China
Email: DrWang@Doctor.com; wangmufan@msn.com

Abstract

Background and Objectives: In China, most patients with mental problems are treated outside hospital, and family therapy is a reasonable choice for them. Using variety of skills trainings, it successfully manages Axis I symptoms of the borderline personality disorder sufferers. We therefore conducted an open study by applying this therapy to the patients with antisocial and narcissistic personality disorders and their family members.
Methods: Twenty-two out of 50 patients with antisocial, and 14 out of 30 with narcissistic personality disorders completed an eight-session family behavior therapy program. Patients' Axis I symptoms were measured with a self-reported visual analogue scale, the depressive mood was measured with the Plutchik-van Praag Depression Inventory (PVP), and Axis II personality dysfunctions were measured with the Parker Personality Measure (PERM). Their results before and after the therapy were compared to those obtained in 30 healthy volunteers.
Results: After treatment, most self-reported symptoms and PVP scores were significantly lowered in both patient groups. The PERM antisocial T-score in the antisocial group and the PERM narcissistic T-score in the narcissistic group were also significantly decreased. The PERM scale scores were not significantly modified by the treatment in the antisocial group, but some of them were significantly normalized in the narcissistic group.
Conclusion: Short-session family behavior therapy could significantly reduce Axis I symptoms in the two groups, and normalize some Axis II dysfunctions in the narcissistic rather than in the antisocial group (German J Psychiatry 2008; 11: 91-97).

Keywords: Antisocial, family behavior therapy, narcissistic, personality disorder

Received: 8.6.2007
Revised version: 29.2.2008
Published: 14.11.2008

Acknowledgements: This study was supported by grants from the Department of Health of Zhejiang Province (No. 2005QN011), the Department of Science and Technology of Zhejiang Province (No. 2005C33022), the Department of Health of Anhui Province (No. 2002B040), the Natural Science Foundation of Zhejiang Province (No. X206965), and the Natural Science Foundation of China (No. 30770781) to the correspondent author (Dr. Wei Wang, the Principal Investigator), and from the Key Project of Humanities and Social Sciences, Ministry of Education of China (No. 07JZD0029) to Dr. M Shen. Other members of the psychotherapy group include Tiejun Jiang, Jianfeng Tang, Yuhong Liu. The authors would like to thank Prof. Veronica Pearson of Hong Kong University for her comments on the previous draft.

Introduction

Patients with personality disorders create problems for themselves, family and society in terms of utilization of medical services, violence, suicide and psychiatric hospitalization (Gabbard et al., 1997; Target, 1998). As a cost-effective method, Dialectical Behavior Therapy (DBT) has proven to be effective in controlling patients' emotion and parasuicidal attempts of patients with borderline personality disorder (Linehan et al., 1991,1993,1994). Treatment strategies for other personality disorders such as antisocial or narcissistic types are also needed, since these patients create similar burdens for family and society (Bateman & Fonagy, 2000; Davidson, 2002; Piper & Ogrodniczuk, 2001).

As a variation of the cognitive-behavioral therapy (CBT), DBT combines behavioral, cognitive, and social skills training. Investigations show that common CBT or DBT reduce anger or antisocial tendency to some extent (Woody et al., 1985; Siddle et al., 2003). On the other hand, family members often are emotional triggers for each other, and intense emotion drives other abnormalities, such situations therefore might hinder the effect of DBT (Rizvi & Linehan, 2001; Robins et al., 2001). As a consequence, dialectic behavioral therapy/family skills training was developed to treat borderline personality disorder, and it has demonstrated robust effects on monitoring patients' emotion or parasuicidal activity (Hoffman et al., 1999).

Family members, whether they are spouses or relatives, share an environment that needs support, validation, love and care. Building a good relationship in the family unit could maximize pleasant and minimize unpleasant events, ease tension, suppress anger or other intense emotions. Although it has various structures, when applied to patients and their relatives, its main goal is to improve the family functioning through the life skills training regarding communication, problem-solving and so on (Asen, 2002). Recent studies have also shown that family therapy was effective in controlling aggression or antisocial tendency in patients (Serketich & Dumas, 1996; Bor, 2004). Family therapy might be especially suitable for mental health problems in China. Taking schizophrenia as an example, it is estimated that only 2% patients are hospitalized at any one time, and that over 90% are cared for by their families (Pearson, 1993; Xiong et al., 1994). In addition, relationships between spouses, children and parents, or others are somewhat problematic in China (Huang, 2005).

If a Chinese family has an individual with mental health problem, the relatives may suffer from the stigma associated with psychiatric disorders (Phillips et al., 2002). As a negative societal attitude directed towards the individual and family, stigma may further stress relationships in the family system and magnify the expressed emotion (Greenley, 1986; Hoffman et al., 2005). Some Chinese families also tended to link the mental illness with malevolent spiritual forces and to seek help from shamans instead of to support the patient with love and acceptance (Li & Phillips, 1990). Lingering mental problems would create more despair for patients and family. Unfortunately, over one year DBT treatment did not lead to improvement in hopelessness in patients with borderline personality disorder (Linehan et al., 1993). Recent studies have shown that acceptance and forgiveness of others enhance psychological well-being across the life course (Thoresen et al., 2001; Worthington et al., 2001; Krause & Ellison, 2003). The purpose of the present study was to try the family behavior therapy in patients with antisocial and narcissistic personality disorders. We have hypothesized that the family behavior therapy would at least relieve most Axis I symptoms reported by these patients.

Methods

Subjects

In this study, we enrolled 30 healthy volunteers (20 women, mean age 26.9 years with 6.0 S.D., range 18–38 years old), and altogether 50 patients with antisocial and 30 patients with narcissistic personality disorders who were diagnosed according to the DSM-IV-TR criteria (American Psychiatric Association, 2000). Their education levels were junior middle school or above. Patients with a preliminary diagnosis of organic brain disease, learning disability, alcohol dependence, drug abuse, psychosis, or active suicidal thoughts and those currently having psychiatric treatment were excluded. Patients with organic sexual problems were also excluded from the study. Outpatients consulted our psychological or psychiatric clinics in major hospitals located in Hefei and Hangzhou. All subjects gave their written informed consent to be included in the study.

In order to reduce the number of possible dropouts, we gave patients and their family members the work telephone numbers of the therapist, and an appointment card which conveying the time and place of the next appointment. Significant others were involved in the treatment as far as possible. However, our study procedure was designed to be around two months, but many patients and their family members withdrew from the second to fourth sessions. Finally, 22 patients with antisocial (4 women, aged 26.5 years old $\pm$ 6.5 SD, ranged 18-40 years old), and 14 patients with narcissistic personality disorders (6 women, aged 23.8 $\pm$ 5.6, range 18-39) and their family completed eight psychotherapy sessions. The dropout rates were 56.0% in the antisocial and 53.3% in the narcissistic groups. There were no statistically significant differences when referring to either age ($F [2, 63] = 1.34$, $p = .27$) or gender distribution ($F = 1.35$, $p = .26$).

Psychotherapists

The correspondent author acted as the principal therapist, while another four doctors (2 PhD and 2 Bachelor of Medicine holders) acted as assistant therapists of the study. Patients were interviewed at least by two of them. These therapists formulated the psychotherapy procedure for each patient through telephone or email contacts or regular meetings every two months. The compliance with psychotherapy

process was ensured by periodical visits to sites by the principal therapist.

Measurements

Both Axes I and II problems were measured once in the healthy volunteers, and twice in patients, i.e., one at the onset of psychotherapy and another at about two months later after they had gone through the treatment sessions. All measurements were done through self-reports in a quiet room. Eating disorders (bulimia nervosa or anorexia nervous), sleep disorders (delayed, unfreshed or nightmare), despair, feeling of inferiority to others, family disharmony, and anxiousness were assessed through a visual analogue scale (VAS), with none of symptom coded as 0 and the maximum as 10.

The depressive tendency was assessed through the Plutchik-Van Praag Depression Inventory (PVP, Plutchik & van Praag, 1987). It contains 34 items, and each item has three scale point (0, 1, 2) which correspond to increasing depressive tendencies. Subjects have "possible depression" if they score between 20 and 25, or depression if they score more than 25. This inventory has proven to be valid in the Chinese culture, with an internal α of .94 (Wang et al., 2002)

The Axis II personality functions were assessed through the Parker Personality Measure (PERM, Parker & Hadzi-Pavlovic, 2001). The instrument assesses 11 types of personality disorders, i.e., the paranoid, schizoid, schizotypal, antisocial, borderline, histrionic, narcissistic, avoidant, dependent, obsessive-compulsive, and passive-aggressive. It has 92 items; each item has five Likert-scale points (1 – very unlike me, 2 – moderate unlike me, 3 – somewhat unlike and like me, 4 – moderate like me, 5 – very like me). It also has proven to be valid in the Chinese culture (Wang et al., 2003); and based on this normative data, the T-scores of each personality scale were presented for a better visualization in the present study.

Psychotherapy procedures

The whole process was separated into eight sessions (each 45 minutes long), the interval between sessions was settled to one to two weeks. Briefly, the eight sessions were described as below:

Step 1: Psychoeducation. During the first two sessions, a therapist educated the patient and family about the nature, course, etiology, and treatment of the antisocial or narcissistic personality disorder. Since patients with a personality disorder have little awareness of the difficulties they have created for others, the description of the problem can help the patients to frame their ideas about themselves and their lives. The fundamental work in these sessions is to rekindle hope of the attendants. There might be no very effective or quick cure. Psychotherapy can be a very effective treatment that can reduce and often eliminate symptoms for long periods of time. Experiences tell us that in many cases during psychotherapy there is a gradual return to the premorbid levels of functioning. On the other hand, intense emotion and stress can trigger the symptoms of personality disorders. Therefore, effective emotional control, life skills application and family harmony are crucial points in the treatment of these personality disorders. To reduce family conflicts, patients and their relatives learned not to judge but to forgive others. In the meantime, all attendants were challenged to adjust their own views of the real meaning of life. Finally, they were encouraged to show more love to other family relatives.

Step 2: Mindfulness. Personality disorder patients have their unique cognitive strategies to view themselves, family members or others, and distinctive ways to defend themselves when emotionally distressed. For instance, an antisocial patient would admit him- or herself "I am vulnerable", think of other people "potentially exploitative", and then behaviorally exploit others. While a narcissistic patient would admit him- or herself "I am inferior (the manifest compensatory belief is I am superior)", think of other people "superior (the manifest compensatory belief is others are inferior)" and then behaviorally demand special treatment (Beck, 1997). To be fully aware of their problems (core beliefs) is one essential movement for help-seeking desire. Patients were asked to bring with them a self-made flashcard, where both old (disordered, trouble-making) and new (therapeutic, positive) core beliefs were written. In the third session, one of the main themes was targeted at the core beliefs substitution by restructuring of cognitions of either antisocial or narcissistic personality disorders. Patients were told to remind themselves with the flashcard when they were distressed.

Step 3: Communication skills acquisition. Within a variety of daily life skills, the effective verbal communication is very important in family and society. This especially holds true for patients with personality disorders, because a minimally sufficient repertoire of interpersonal communication skills is prerequisite to effective problem solving. Within the fourth session, patients were taught to use the biblical conversation skills. Whenever a conversation partner speaks slowly or quickly, or whether losing his temper or not, quickly present yourself to him, and get the main message in his speech or temper as soon as possible. When it is your turn, put forward the things in your mind slowly instead of in a hurry, trying to convince your conversation partner in a well-organized way. Even if you are provoked or agitated by the temperamental arguments or insults of your conversation partner, you may loose your temper, but once again as slowly as possible.

Step 4: Communication skills generalization. During the fifth session, family members were asked to illustrate several conversation dilemmas they encountered during their daily activities. The generalization of the communication skills was elevated through periods of discussion and practice among family members. After the session, they were encouraged to practice the skills in everyday life at home, finally to acquire an accurate and effective self-expression (how to validate).

Step 5: Problem solving skills acquisition. When families show competency of basic communication skills, the problem solving model is introduced as a means to enhance coping with stressful life events, stabilize and manage labile emotions, decrease painful negative emotional arousal and reduce

Table 1. Mean scores (± S.D.) of self-reported symptoms and depressive mood, measured with the visual analogue scale in the healthy subjects, and in patients with antisocial and narcissistic personality disorder before and after family behavior therapy. [a] p < .05 vs healthy subjects, [b] p < .05 vs after therapy.

	Healthy controls	Antisocial		Narcissistic	
		Before	After	Before	After
Eating disorder	.07 ± .25	1.4 ± 2.3[a,b]	.2 ± .7	1.1 ± 1.5[a,b]	.1 ± .5
Sleep disorder	.17 ± .46	3.6 ± 3.5[a,b]	1.1 ± 1.3	2.7 ± 3.6[a,b]	.8 ± 1.1
Inferiority feeling	.20 ± .48	6.1 ± 4.0[a,b]	2.0 ± 1.7[a]	7.6 ± 3.4[a,b]	2.6 ± 1.5[a]
Despair	.07 ± .25	4.7 ± 2.6[a,b]	1.8 ± 1.4[a]	3.9 ± 2.7[a,b]	1.4 ± .9[a]
Family disharmony	.37 ± .85	6.8 ± 3.2[a,b]	3.3 ± 1.8[a]	3.7 ± 3.2[a,b]	1.7 ± 1.3
Anxiousness	.40 ± .86	5.0 ± 1.1[a,b]	1.0 ± .9[a]	5.2 ± 1.0[a,b]	1.2 ± 1.0
Depression (PVP)	3.8 ± 5.6	28.4 ± 12.6[a,b]	6.6 ± 5.1	27.7 ± 11.1[a,b]	6.4 ± 5.2

family tension. The skills in the sixth session included (1) discussing and coming to an agreement on the exact nature of the problem, (2) generating a list of five or more alternative solutions without judging their relative merits as of yet, (3) discussing, in turn, the pros and cons of each proposal alternative, (4) choosing the best solution or combine of solutions, (5) formulating a specific plan of how to implant the solution, and (6) subsequent review of successfulness and praise for people's efforts implementing the solution.

Step 6: Problem solving skills generalization. During the seventh session, such skills generalization was promoted through periods of discussion and practice among family members. Afterwards, they were again encouraged to practice the skills in everyday life at home.

Step 7: Motivation enhancement. In the eighth session, the therapist led patients and their family members to recall the encouraging changes regarding the patients' behavioral disposition and the context in which effective behaviors are emitted and reinforced. They were encouraged to maintain the gain, to induce more pleasant activities and relaxation within the family milieu.

Similar to most previous versions of family therapy, during each interval between sessions, a therapist assigned homework to the patients and their family members, in order to practice the therapist's arrangements daily. At the beginning of next session, the therapist checked the achievements regarding how the homework was conveyed. They were repetitively told to accept each other, and to learn to think of others in less critical way within the family.

Data analyses and statistics

The healthy subjects, antisocial and narcissistic personality disorder patients before and after psychotherapies were treated as five groups. Mean VAS scores of the self-reported six Axis I symptoms were treated as repeated measures, as were the 11 mean PERM scale T-scores. Both Axes I and II scores in the five groups were analyzed with by using multiple-way ANOVA. Post-hoc tests were performed by using Duncan's new multiple range test. The mean PVP scores in the five groups were analyzed by using one-way ANOVA plus Duncan's test. A *P* value less than .05 were considered to be significant.

Results

When the self-reported Axis I symptoms (VAS scores) were treated as repeated measurements, MANOVA detected significant between-group differences (main effect: group, $F [4, 97] = 82.41$, $p < .001$; symptom, $F [5, 485] = 36.88$, $p < .001$; group X symptom interaction, $F [20, 485] = 6.85$, $p < .001$). All Axis I symptoms were prominent in patients with antisocial and narcissistic personality disorders before psychotherapy (Table 1). After Duncan's test in both patient groups (secondary effect), family behavior therapy was shown to be effective in treating eating and sleep problems. It also had additional effects to decrease family disharmony and anxiousness in the narcissistic group. Moreover, the therapy lowered but did not normalize inferiority feelings and despair in both groups. Also, it normalized family disharmony and anxiousness in the antisocial group. In addition, one-way ANOVA detected that the mean PVP scores were significantly different between groups ($F [4, 97] = 64.67$, $p < .001$), post-hoc tests detected that the PVP scores were significantly reduced after the therapy both in the antisocial (28.4 vs. 6.6) and in the narcissistic (27.7 vs. 6.4) groups.

For the individual data of the self-reported symptoms, we counted the VAS scores higher than a moderate intensity, i.e., those superior than 5 in each patient. At the time of enrolment, one patient reported to have bulimia nervosa, seven had sleep disorders, 16 had inferiority feelings, 11 had despair, 17 had family disharmony, and 16 reported anxiousness. Fourteen patients scored ≥ 26 on the PVP and were considered depressed; one healthy subject and three patients scored between 20 and 25 and were considered as having "possible depression". After treatment, only two patients reported to have inferiority feelings, and one reported despair.

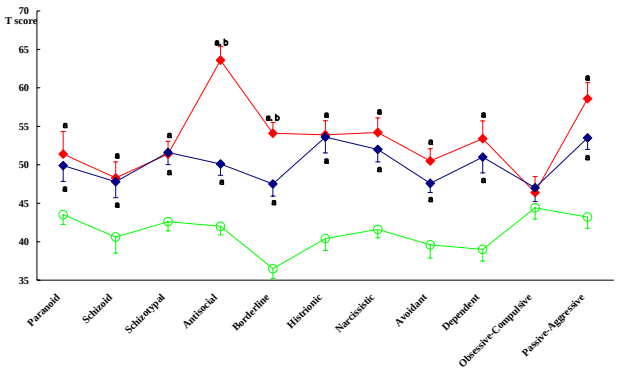

Figure 1. Mean T-scores of PERM scales (for the sake of clarify, S.E.M. are given) in healthy subjects (green) and patients with antisocial personality disorder before (red) and after (blue) family behavior therapy. Note: [a] p < .05 vs healthy subjects, [b] p < .05 vs after therapy.

MANOVA also detected that there were significantly between group differences when all 11 PERM scale scores were analyzed (main effect: group, $F [4, 97] = 22.07$, $p < .001$; scale, $F [10, 970] = 12.13$, $p < .001$; group x scale interaction, $F [40, 970] = 5.22$, $p < .001$). Duncan's test showed that all 11 PERM scales were elevated in patients before psychotherapy except the Obsessive-Compulsive Scale, which remained normal in the patients with antisocial personality disorder (Figures 1 and 2). After therapy, some scales such as the Paranoid, Antisocial, Avoidant and Passive-Aggressive were normalized in the narcissistic group (Figure 2). Other scales were only lowered but not normalized in either patient group. However, when compared to the respective scale scores before the therapy, those of the Antisocial (63.6 vs. 50.1) and Borderline (54.1 vs. 47.5) in the antisocial group (Figure 1), and those of the Antisocial (49.3 vs. 44.6), Narcissistic (68.0 vs. 50.8), and Avoidant (50.1 vs. 44.1) in the narcissistic group (Figure 2) were significantly lowered. Moreover, individual data have shown that no subjects were diagnosed as antisocial or narcissistic personality disorder again after the treatment.

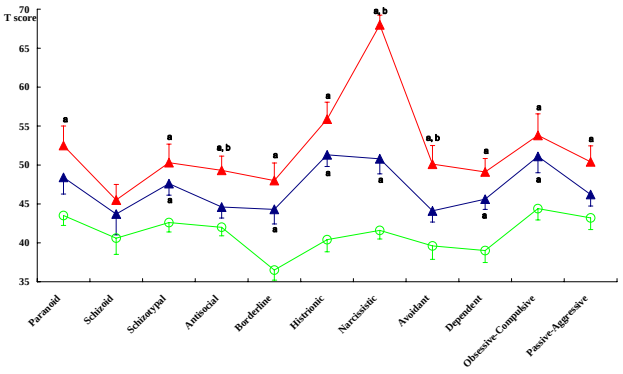

Figure 2. Mean T-scores of PERM scales (for the sake of clarify, S.E.M. was given here, error bar) in the healthy subjects (green) and patients with narcissistic personality disorder before (red) and after (blue) family behavior therapy. Note: [a] p < .05 vs healthy subjects, [b] p < .05 vs after therapy.

Discussion

After eight sessions of family behavior therapy in each group, most self-reported symptoms of patients were alleviated. The depressive tendencies were also decreased after treatment. In most conditions, this therapy did not change the disordered personality functions significantly in the antisocial group, but could normalize some personality dysfunctions in the narcissistic group. Our results suggest that family behavior therapy was effective in relieving Axis I symptoms of patients with the antisocial and narcissistic personality disorders, and in normalizing some personality functions in patients with narcissistic personality disorder in China.

In psychiatric patients without Axis II diagnoses, most Axis I symptoms can be successfully reduced or relieved through CBT or other cognitive treatments (Hollon et al., 2006). The reduction of Axis I symptoms in the antisocial personality disorder was also achieved after 12-session CBT therapy (Davidson & Tyrer, 1996). Accordingly, in our study, most self-reported symptoms of antisocial patients were alleviated, and of narcissistic patients as well. Mechanisms behind these reductions could be conveyed through modifying cognitive distortions and increasing problem-solving skills (Hoffman et al, 2005). Probably the mechanism might be fostered by their daily deeds of thinking of others, accepting and loving each other in the family. Indeed, in short-term DBT, a high level of acceptance and love from caregivers rendered patients to feel more competent and to cope problems better (Silk et al., 1994).

Different from the results of DBT in borderline personality disorder (Linehan et al., 1993), our family behavior therapy successfully decreased the intensity of despair in both antisocial and narcissistic patients. Less despair or more hope would motivate the patients and their family members to change, and drive the cognition restructuring and the life-skills learning (Rizvi & Linehan, 2001; Robins et al., 2001). Our therapy encouraged patients and family members to lead a life of happy and loving each other. Love and hope are related to optimism, and the latter plays a dominant role in the psychotherapy for personality disorders (Hoffart & Sexton, 2002).

We failed to find that family behavior therapy could modify PERM scale T-scores to a greater extent in both patient groups. The changes in the antisocial group were even less. This is in accordance with an earlier study that antisocial personality disorder patients without depression showed little gain from psychotherapy compared to those with pure depression (Woody et al., 1985). The little progress of personality dysfunction might be resulted from that part variance of a personality trait is from the genetic contribution (Jang, 2005). There were, however, two exceptions: the mean PERM antisocial T-score in the antisocial patients and the mean PERM narcissistic T-score in the narcissistic patients, which had been significantly reduced after therapy. Reasons for the odds might be that in our study design, we targeted at

the cognitive restructuring of the antisocial and narcissistic patients respectively, rather than at other personality disorders. Together with the results in the narcissistic group, we might hypothesize that a longer session of family behavior therapy could reshape the disordered personality functions in the antisocial patients.

There are several limitations of our study. Firstly, our therapy is a relatively short one, although three to six sessions using problem-solving have been shown to be effective in eliminating Axis I symptoms (Mynors-Wallis, 1995; Sumathipala et al., 2000). Greater clinical improvement over disordered personality traits would require longer therapies. Secondly, we did not conduct a follow-up study in order to tell how long its effects would last in these personality disorders. Thirdly, although all our patients were clinically diagnosed and confirmed by the PERM, we did not enroll patients with alcoholism, drug abuse, or illegal activity. Therefore, whether or not family behavior therapy is effective in these patients remains unanswered. Fourthly, our study is an open study, which lacks a waiting list control that can control for psychological placebo effects. Fifthly, although we had employed a questionnaire to quantify the functioning styles of personality disorder, we only used a visual analogue scale instead of a specific one to measure its treatment effects.

Patients with antisocial and narcissistic personality disorders in our study have shown a dropout rate of almost 60% during the first three sessions, which is comparable with that in Western countries (Skodol et al., 1983; Gunderson et al., 1989; Kelly et al., 1992). Early dropout prevents scholars from investigating the efficacy of a therapy in a larger sample. Having withdrawn from family behavior therapy, patients also refused to attend other kinds of group therapy. Therefore a more applicable social or community therapy is called for these patients with these personality disorders.

References

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision. Washington DC: American Psychiatric Association 2000.

Asen E. Outcome research in family therapy. Advances in Psychiatric Treatment 2002; 8: 230-238.

Bateman AW, Fonagy P. Effectiveness of psychotherapeutic treatment of personality disorder. British Journal of Psychiatry 2000; 177: 138-143.

Beck JS. Cognitive approach to personality disorders. In: Dickstein LJ, Riba MD & Oldham JM (eds). American Psychiatric Press Review of Psychiatry. Washington, DC, American Psychiatric Press, 1997; vol 16, pp. 73-106.

Bor W. Prevention and treatment of childhood and adolescent aggression and antisocial behavior: a selective review. Australian and New Zealand Journal of Psychiatry 2004; 38: 373-380.

Cohen J. A power primer. Psychological Bulletin 1992; 112: 155-159.

Davidson KM, Tyrer P. Cognitive therapy for antisocial and borderline personality disorders: single case study series. British Journal of Psychiatry 1996; 35: 413-429.

Davidson SE. Principles of managing patients with personality disorder. Advances in Psychriatric Treatment 2002; 8: 1-9.

Gabbard GO, Lazar SG, Hornberger J, Spiegel D. The economic impact of psychotherapy: a review. American Journal of psychiatry 1997; 154: 147-155.

Greenley J. Social control and expressed emotion. Journal of Nervous and Mental Disease 1986; 174: 24-30.

Gunderson JG, Frank AF, Ronningstam EF, Wachter S, Lynch VJ, Wolf PJ. Early discontinuance of borderline patients from psychotherapy. Journal of Nervous and Mental Disease 1989; 177: 38-42.

Hahlweg K, Wiedemann G. Principles and results of family therapy in schizophrenia. European Archives of Psychiatry and Clinical Neurosciences 1999; 249 (Suppl 4): IV108-IV115.

Hoffart A, Sexton H. The role of optimism in the process of schema-focused cognitive therapy of personality problems. Behavioral Research and Therapy 2002; 44: 611-623.

Hoffman PD, Fruzzetti AE, Buteau E, Neiditch ER, Penney D, Bruce ML, Hellman F, Struening E. Family connections: a program for relatives of persons with borderline personality disorder. Family Process 2005; 44: 217-225.

Hoffman PD, Fruzzetti AE, Swenson CR. Dialectical behavior therapy-family skills training. Family Process 1999; 38: 399-414.

Hollon SD, Stewart MO, Strunk D. Enduring Effects for Cognitive Behavior Therapy in the Treatment of Depression and Anxiety. Annual Reviews of Psychology 2006; 57: 285-315.

Huang WJ. An Asian perspective on relationship and marriage education. Family Process 2005; 44: 161-173.

Jang KL. The behavioral genetics of psychopathology: a clinical guide. Mahwah, New Jersey, Lawrence Erlbaum Associates, 2005.

Kelly T, Soloff PH, Cornelius J, George A, Lis JA, Ulrich R. Can we study (treat) borderline patients? Attrition from research and open treatment. Journal of Personal-ity Disorders 1992; 6: 417-433.

Krause N, Ellison CG. Forgiveness by God, forgiveness of others, and psychological well-being in late life. Journal for the Scientific Study of Religion 2003; 42: 77-93.

Li SX, Phillips MR. Witch doctors and mental illness in mainland China: a preliminary report. American Journal of Psychiatry 1990; 147: 221-224.

Linehan MM, Armstrong HE, Suarez A, Allmon D, Heard HL. Cognitive-behavioral treatment of chronically parasuicidal borderline patients. Archives of General Psy-chiatry 1991; 48: 1060-1064.

Linehan MM, Heard HL, Armstrong HE. Naturalistic follow-up of a behavioral treatment for chronically parasuicidal borderline patients. Archives of General Psychiatry 1993; 50: 971-974.

Linehan MM, Tutek DA, Heard HL, Armstrong HE. Interpersonal outcome of cognitive behavioral treatment

for chronically suicidal borderline patients. American Journal of Psychiatry 1994; 151: 1771-1776.

Linehan MM. Cognitive behavior therapy of borderline personality disorders. New York: Guilford 1993.

Mynor-Wallis LM, Gath DH, Lloyd-Thomas AR, Tomlinson D. Randomized controlled trial comparing problem solving treatment with amitryptyline and placebo for major depression in primary care. British Journal of Psychiatry 1995; 310: 441-445.

Parker G, Hadzi-Pavlovic D. A question of style: refining the dimensions of personality disorder style. Journal of Per-sonality Disorders 2001; 15: 300-318.

Pearson V. Families in China: an undervalued resource for mental health? Journal of Family Therapy 1993; 15: 163-185.

Phillips MR, Pearson V, Li F, Xu M, Yang L. Stigma and expressed emotion: a study of people with schizophrenia and their family members in China. British Journal of Psychiatry 2002; 181: 488-493.

Piper WE, Ogrodniczuk JS. Psychotherapy of personality disorders. Current Psychiatry Reports 2001; 3: 59-63.

Plutchik R, van Praag HM. Interconvertability of five self-reported measures of depression. Psychiatry Research 1987; 22: 243-256.

Risvi SL, Linehan MM. Dialectical behavior therapy for personality disorders. Current Psychiatry Reports 2001; 3: 64-69.

Robins CJ, Ivanoff AM, Linehan MM. Dialectic behavior therapy. In: Livesley WJ (ed). Handbook of personality disorders: theory, research, and treatment. New York: Guil-ford, 2001: 437-459.

Serketich W, Dumas JE. The effectiveness of behavioral parent training to modify antisocial behavior in children: a meta-analysis. Behavioral Therapy 1996; 27: 171-186.

Siddle R, Jones F, Awenat F. Group cognitive behavior therapy for anger: A pilot study. Behavioral and Cognitive Therapy 2003; 31: 69-83.

Silk KR, Eisner W, Allport C, DeMars C, Miller C, Justice RW, Lewis M. Focused time-limited inpatient treatment of borderline personality disorder. Journal of Per-sonality Disorders 1994; 8: 268-278.

Skodol AE, Buckley P, Charles E. Is there a characteristic pattern to the treatment history of clinic outpatients with borderline personality? Journal of Nervous and Mental Disease 1983; 71: 405-410.

Sumathipala A, Hewege S, Hanwella R, Mann AH. Randomized controlled trial of cognitive behavior therapy for repeated consultations for medically unexplained complaints: a feasibility study in Sri Lanka. Psychologi-cal Medicine 2000; 30: 747-757.

Target M. Outcome research on the psychosocial treatment of personality disorders. Bulletin of the Menninger Clinic 1998; 62: 215-230.

Thoresen CE, Harris AH, Luskin F. Forgiveness and health: an unanswered question. In: McCullough ME, Pargament KI & Thoresen CE (eds). Forgiveness: Theory, Research, and Practice. New York: Guilford, 2001: 254-280.

Wang W, Cao M, Zhu S, Gu J, Liu J, Wang Y. Zuckerman-Kuhlman's Personality Questionnaire in patients with major depression. Social Behavior and Personality 2002; 30: 757-764.

Wang W, Hu L, Mu L, Chen D, Song Q, Zhou M, Zhang W, Hou J, Li Z, Wang J, Liu J, He C. Functioning styles of personality disorders and five-factor normal personality traits: a correlation study in Chinese students. BMC Psychiatry 2003; 3, 11.

Wasserman L. Biblical behavior modification. In: Hersen M & Sledge W (eds). Encyclopedia of Psychotherapy. New York: Elsevier, 2002: Vol. 1, 301-307.

Woody GE, McLellan T, Luborsky L, O'Brien CP. Sociopathy and psychotherapy outcome. Archives of General Psychiatry 1985; 42: 1081-1086.

Worthington EL, Berry JW, Parrott L. Unforgiveness, forgiveness, religion, and health. In: Plante TG & Sherman AC (eds). Faith and Health: Psychological Per-spectives. New York: Guilford, 2001: 107-138.

Xiong W, Phillips MR, Hu X, Wang R, Dai Q, Kleinman J, Kleinman A. Family-based intervention for schizophrenic patients in China: a randomized controlled trial. British Journal of Psychiatry 1994; 165, 239-247.